action are to be found in the fact that only a single examination has been made. If this has been done prematurely, before the alkalinized gastric fluid has reacquired its alkalinity, then the conclusion has been reached that its action is depressive; or if the examination is made at the moment when the normal acidity has been neutralized, the conclusion is that it has no action; or, further, if the examination has been made late, and only if the dose is suitable, it may be said to have an excitant action. Reichmann made only a single examination, and in general an early one, sometimes about ten minutes after ingestion, more often after thirty minutes, and exceptionally after one and a half to two hours. Further, he made the error of not experimenting upon the same patient with variable doses, and of generally employing insufficient doses to provoke a notable excitation of the secretion. For these reasons, and the additional one that the duration of his experiments was too short, the result was that he reached the opinion that its action was either depressive or at least *nil.* The remote action of the drug can be summed up as follows: The sensibility of its action is in inverse ratio to the richness of the hydrochloric acid in the gastric secretion.—*Bulletin Général de Thérapeutique*, 1896, 4e liv., p. 155.

THE THERAPEUTIC ACTION OF SALICYLIC ACID AND THE SALICYLATES.

M. G. PONCHET states that salicylic acid diminishes the activity of protoplasm, slows the organic processes of formation or retrogression, acts upon formed and soluble ferments, arrests the amœboid movements of leucocytes, and suspends diapedesis. On the other hand, thirty to forty-five grains produce cerebral congestion, accompanied by symptoms analogous to those observed from quinine-intoxication, notably tinnitus, disturbances of vision, and headache. Occasionally these attain to deafness and vertigo due to congestion of the middle and internal ear, which rarely may go on to true inflammation. Large doses produce hallucinations, delirium, profuse sweating, vomiting, and collapse. The kidneys may be the seat of hæmaturia, of hemorrhage, and albuminuria. In a healthy man neither pulse nor temperature is changed. But in animals, after poisonous doses, there is a marked depression of the vascular tension, paralysis immobilizes the organs of respiration, and death follows convulsions, caused by carbon-dioxide poisoning. In man, if ingested by the stomach, the sharp taste and vigorous irritation of mucous membrane, which may go on to nausea and vomiting and give place to burning sensations, are noted. Sometimes colicky pains, accompanied by diarrhœa, follow its administration to dogs. These symptoms should not be produced in man if the injunction, never to prescribe the sodium salicylate in powder or in concentrated solution, is followed. The only inconvenience, if the drug is properly administered, lies in a temporary intolerance, after prolonged administration, showing itself as a disgust for food as complete as after the use of an alkaline water or after alcoholic drinks. Salicylic acid is diffused through the organism with great rapidity; in healthy individuals it stimulates the urinary flow by irritating the renal epithelium, as does potassium nitrate, but this effect is diminished as inflammation develops. In inflammatory conditions of the kidneys and in severe general affections this secretion may be retarded or diminished; for instance, in typhoid patients it may produce a true urinary break-down. We find the urinary solids increased, phosphoric acid, the sulphates, carbonates, and preformed sulphates, the latter and, as a consequence, the phenol show that some of the acid has undergone decomposition. There is also a remarkable elimination of uric acid, even more notable than that produced by lithium; in fact, lithium salicylate is an excellent evacuant of the urates. The saliva is sometimes, the perspiration and bile always, increased. Sodium salicylate is an energetic cholagogue in small doses, fifteen to thirty grains; it increases and liquefies the bile, attaining its maximum action in two to three hours after its administration; but gentle purgatives should be associated with it to stimulate intestinal peristalsis. However, it may give rise to hepatic congestion more or less intense, sometimes obliging the discontinuance of the drug.

The physiological action of salicylic acid can be summed up in the statement that it diminishes the vital activity of protoplasm. It is a specific in acute articular rheumatism and in gout, showing itself by a special action exercised not upon a cause still unknown in its real essence, but on account of the power of the anatomical element to sustain this cause and react under its influence. This, however, does not exclude a true specific action upon a cause still unknown, analogous to that exercised by quinine upon the blood-parasites of paludism or mercury upon syphilis. Besides this specific action, which may be called a special antiseptic, there is a general antiseptic one, which may be useful in variola, diarrhœa, diphtheria, and orchitis after blennorrhagia. It is antithermic, but this is not a therapeutic property, for it is the first symptom of the toxic action. To characterize in few words the remarkable specific action of this drug: It is a remedy of a symptom, and not of a diathesis; its use relieves only temporary accidents, preventing neither their production nor return, nor indeed their complications, as does quinine the accidents of paludism, or mercury those of syphilis. —*Les Nouveaux Remèdes*, 1896, No. 3, p. 57, and No. 4, p. 89.

THE EFFECT OF DIPHTHERITIC TOXIN UPON THE HISTOLOGICAL ELEMENTS OF THE NERVOUS SYSTEM.

DOTT. CARLO CENI, from his studies, concludes that in patients dying of diphtheria we cannot always recognize appreciable morphological changes in the nervous elements, especially if death has taken place early. Experimentally in rabbits subjected to inoculations with diphtheritic bacilli or to injection with diphtheria toxin, death is constantly accompanied by marked morphological alteration in the nervous elements. The intensity of the alteration depends not so much upon the amount as the duration of the toxic action. In patients the general rule is that these changes are limited to the protoplasmic prolongations, leaving unaltered the cell-body and the nervous prolongations. Only in rare, special cases, through prolonged action of the diphtheritic toxin, the atrophic process of the nervous elements presents itself in a more advanced state, indicating alterations in form, both of the cell-body and nervous prolongations. In patients dying of diphtheria the incipient atrophic process of the nervous elements is limited to a few isolated cells disseminated through the encephalic mass; in animals, on the other hand, it extends to diffuse groups of cells, acquiring the character of a diffused